United States Environmental Protection Agency

Office of Information Collection:

Environmental Information Exchange Network

Overview

The Environmental Information Exchange Network (Exchange Network) is an Internet-based approach for exchanging environmental data among partners (e.g., EPA, states, tribes and territories). Built on the principles of applying data standards; providing secure, real-time access; and electronically collecting and storing accurate information, the Exchange Network enables participants to control and manage their own data while making it available to partners via requests over a secure Internet connection. By facilitating the efficient exchange of environmental information among interested parties at all levels of government, the Exchange Network has begun to transform the way information is shared.

Exchange Network Objectives:

- Improves the timeliness and accuracy of data;
- Reduces the burden and costs associated with reporting;
- Enhances data access; and
- Supports better decisions on environmental issues.

The information technologies featured on the Exchange Network allow EPA and its partners to save time and resources on environmental reporting and ensure timely, high-quality data exchanges. The Exchange Network also fosters new information exchanges among its partners by providing infrastructure and services.

Through utilizing the Exchange Network, partners are able to realize efficiencies in operations, as they leverage the technology infrastructure to better provide services and streamline federal reporting requirements. EPA benefits by having high-quality environmental data and access to the right information at the right time, while allowing the partners to provide closer data stewardship.

Examples of Exchange Network Projects:

- *Electronic Discharge Monitoring Report (eDMR) Project*- This project, led by the Michigan Department of Environmental Quality, made it possible for regulated facilities within the state to submit DMRs to the state electronically, greatly reducing the cost and burden associated with submitting these reports in hard copy. The information is entered once and then is transferred from the facility to the State. Michigan then transfers the data via the Exchange Network to EPA accurately and efficiently. The State of Michigan no longer needs to manually enter data or correct mis-keyed information. The system also helped to eliminate the three-year backlog of daily reports within the first 18 months after system implementation.

- *Pacific Northwest Water Quality Data Exchange Project*- This project, led by the Oregon Department of Environmental Quality, focuses on the development of an eXtensible Markup Language (XML) schema for exchanging water quality data among states in the Pacific Northwest. Extensible Markup Language is a flexible language for creating common information formats and sharing both the format and content of data over the Internet and elsewhere. This data exchange uses a common set of data elements and XML schema to define the data that are shared through individual Exchange Network Nodes. Stakeholders can add data by contacting the project managers. This data exchange provides access to an ever-growing source of comparable water quality monitoring data, making this exchange a powerful management tool for environmental decision makers who need timely, accurate, and consistent data on watersheds in the Pacific Northwest.

- *Beaches Monitoring Data Project*- This project, led by the New Jersey Department of Environmental Protection in partnership with Earth 911, uses state-of-the-art technology and the infrastructure of the Exchange Network to streamline beach monitoring and notification processes. The system allows local water quality monitors to record sampling results on handheld Personal Digital Assistants and wirelessly upload them to New Jersey's data management system. Laboratories quickly and securely add sample results to data records over the Internet. Using the sampling and monitoring results, the system makes recommendations to agency or department officials on whether to order beach closures.

- *Drinking Water Laboratory Results Project*- Led by the New Hampshire Office of Information Technology, this project supports the electronic submission of drinking water data directly from laboratories to state drinking water programs and EPA. A five state team developed an electronic data flow from laboratories to the State Drinking Water Programs using the Exchange Network as its foundation. The states developed an XML schema broad enough to accommodate all types of drinking water data, which allows states to implement only those pieces appropriate to their individual state needs. The states worked closely with EPA to ensure that the schemas conformed to the Safe Drinking Water Information System, an EPA database that helps states manage drinking water resources.

More Information

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EPA's Exchange Network Web Site: http://www.epa.gov/exchangenetwork/

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